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ABSTRACT

The general public usually expresses evaluations of universities through statements of satisfaction or dissatisfaction. This study describes citizen's values regarding: (1) the importance of various university goals and activities; (2) the importance of various academic fields or disciplines; and (3) the importance of various reasons for attending the University of Minnesota. The relationships between these categories of educational values and citizen satisfaction with the University of Minnesota is examined. A stratified random sample of 722 Minnesota citizens received a questionnaire that had a series of items related to the purposes of the study; 56 percent responded. Common factor analyses were used to identify categories of educational values. Citizens' values regarding important goals and activities of the University and their values regarding important reasons for attending the University were used to explain their satisfaction. (Author/JMF)

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CITIZENS' EDUCATIONAL VALUES AND THEIR SATISFACTION WITH A STATE UNIVERSITY

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Abstract

This study describes citizens' values regarding: (1) the importance of various university goals and activities; (2) the importance of various academic fields or disciplines; and (3) the importance of various reasons for attending the University of Minnesota. Then, the study examines the relationships between these categories of educational values and citizen satisfaction with the University of Minnesota. A stratified random sample of 722 Minnesota citizens received a questionnaire which had a series of items related to the purposes of the study. Fifty-six percent returned completed questionnaires. Common factor analyses were used to identify categories of educational values. Citizens' values regarding important goals and activities of the University and their values regarding important reasons for attending the University were somewhat useful in explaining their satisfaction.

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Citizens' Educational Values and Their Satisfaction with a State University[1]

The general public usually expresses evaluations of universities through statements of satisfaction or dissatisfaction. Differences in beliefs and educational values affect what people will see as satisfactory characteristics or processes in a university. For this study, we inferred educational values of citizens from their endorsement of prescriptive statements about important facets of the university and examined the relationships between these educational values and citizens' satisfaction with a university.

The kinds of educational values studied include: (1) the importance of various university goals and activities; (2) the importance of various academic fields or disciplines to the improvement of "present-day life" for most Minnesota citizens; (3) the importance of various reasons for students' attending the University of Minnesota.

In an earlier study (Biggs and Barnhart, 1973), urban citizens' satisfaction with a university was found to be strongly related to their beliefs about university life. Other variables such as sociodemographic characteristics of citizens, their numbers of university-related experiences, their feelings of alienation, their attitudes about campus dissent, and their attitudes about campus freedom of expression had negligible relationships to their levels of satisfaction. These results regarding beliefs and satisfaction lend some support to Rokeach's (1968) definition of an attitude (i.e. satisfaction) as being a relatively enduring organization of beliefs about objects or

situations (i.e. the University of Minnesota). The earlier study examined the relationship of satisfaction to descriptive beliefs about the University; this study examines the relationship of satisfaction to values or prescriptive beliefs.

Procedure

Questionnaire

Items about educational values represented three domains. The first was the importance of each of sixteen goals or activities for the University of Minnesota. Some of these items were selected from goals and activities identified by Gross and Grambsch (1968). The second domain was the importance of each of eleven academic areas or fields of study in the improvement of "present-day life" for most Minnesota citizens. The third domain was the importance of each of seven stated reasons for students to attend the University of Minnesota. These last items were derived from the descriptions of the six value types described by Allport, Vernon and Lindsey in their Study of Values (1960). Subjects rated each item in all three domains on a four-point scale (1 = Very Important, 4 = Not at all Important).

The measure of satisfaction included ten items which covered satisfaction with faculty, students, regents, instruction, research, and extension services. This set of items has adequate homogeneity (Cronbach alpha coefficient of internal consistency = .85).

Sample

A stratified random sample of 722 Minnesota citizens was drawn from the eleven development regions of the state. The number of individuals to be sampled from each region was determined according to

the proportion of the total state population residing in that region. Towns to be sampled were then randomly selected to proportionately represent the urban/rural distribution within each region, and individuals were selected at random from telephone directories of these towns. The number selected is sufficiently large to generalize to the entire state population.

In Spring 1974, mailing procedures began with an advance letter requesting citizen participation. A questionnaire then was mailed and subsequently, nonresidents received a total of five follow-up letters, on the average of one every ten days. Additional attempts to reach nonrespondents and noncontacts through follow-up letters and/or telephone calls were made during the Spring of 1975.

Of the original sample, 102 were not contacted (87 had insufficient addresses and 15 were deceased). Of the remaining 620 persons, 409 (56%) returned completed questionnaires. About 15% (N=97) of those contacted refused to answer the questionnaire; the most frequently stated reason for their refusal was lack of knowledge of the University.

The characteristics of citizens who returned the questionnaire were compared with the 1970 United States census characteristics of Minnesota citizens. Persons returning questionnaires included a somewhat disproportionate number of males (60% in sample vs. 49% in census). The percentage of farmers in the sample was about the same as the percentage in the census, but office workers, salespersons, skilled tradespeople and laborers/factory workers were all somewhat underrepresented in the sample. The sample included a greater percentage of persons having a college degree or graduate work (30% in sample vs. 10% in census) and distinctly underrepresented persons with

less than a high school education (16% in sample vs. 40% in census).

Analysis

Common factor analysis was used to reduce the three sets of values items - educational goals and activities, academic areas and disciplines, and reasons for attending the University. In those cases where there were any missing data, a subject's responses were deleted from the factor analysis. In each factor analysis squared multiple correlations were used as estimates of communality in the diagonals of the correlation matrices. The Kaiser criterion of eigenvalues $\geq$ 1.0 was used in determining the number of factors to be rotated; Cattell's (1966) "scree" test was also used to check on the estimate of the number of meaningful factors. Varimax rotation was used to seek a factor pattern that allowed a simple description of each factor. Simple composite scores were constructed from clusters of items that correlated above .30 with each factor.

Standard and stepwise multiple regression procedures were used to examine the relationships among the three sets of independent variables and the dependent variable, satisfaction with the University. Attention was focused on the overall contributions of these sets to an explaination of the variance in satisfaction rather than on the contribution of each item or composite in the set. In those cases where there were missing data, a subject's responses were deleted from the regression analysis.

Results

Factors

Educational goals

Five categories of educational goals are described in Table 1.

In the factor analysis of educational goals items, rotations were made of three, four and five factors. The five-factor set had the cleanest partition of items among factors and made the most sense conceptually. These five factors accounted for 58% of the total variance in item responses. The factors are labeled: (1) Enriching and Supporting Extracurricular Activities; (2) Advancement and Dissemination of Knowledge; (3) Degree-Related Instruction; (4) Career-Related Services; and (5) Student Development. Alpha coefficients of internal consistency for simple composites formed from these clusters ranged from .58 to .76, indicating that the items in each cluster are fairly homogenous. Mean responses to the items in these categories are (1) Enriching and Supportive Extracurricular Activities, 2.26; (2) Advancement and Dissemination of Knowledge, 1.86; (3) Career-Related Services, 1.65; (4) Degree-Related Instruction, 1.53; and (5) Student Development, 1.33 (where 1 = Very Important and 4 = Not at all Important). The average citizen considers the University's providing enriching and supportive extracurricular activities to be less important than the University's commitment to student development and instruction.

Insert Table 1

Academic disciplines and fields

Three categories of academic disciplines and fields are shown in Table 2. In this factor analysis, rotations were made of two and three factors. The three-factor set made most sense conceptually and had the cleanest partition of items among factors. These three factors

accounted for 62% of the total variance. The three factors are labeled: (1) Applied Scientific Fields; (2) Social Cultural Fields; and (3) Vocational Fields. Alpha coefficients of internal consistency for simple composites formed from these clusters ranged from .75 to .78 indicating that the items in each cluster are homogenous. Mean responses are (1) Applied Scientific Fields, 1.64; (2) Social Cultural Fields, 2.40; and (3) Vocational Fields, 1.73. The average citizen thinks that applied scientific and vocational fields are more important than social cultural fields to improving present-day life for most Minnesota citizens.

Insert Table 2

Reasons for attending a university.

Important reasons for attending the University of Minnesota are shown in Table 3. In this factor analysis, rotations were made of both two and three factors. Two factors made most sense conceptually and had the cleanest partition of items among factors. These factors accounted for 68% of the total variance. The two are labeled: (1) Personal Development, and (2) Economic and Social Success. Alpha coefficients of internal consistency for simple composites formed from these clusters were .70 and .55 indicating that these categories are moderately homogeneous. Mean responses are: (1) Personal Development, 1.59 and (2) Economic and Social Success, 2.54. The average citizen thinks that students should consider personal development more important than economic and social success as reasons for attending the University.

Insert Table 3

Relationship to Satisfaction.

The relationship among the three sets of educational values (important goals, important academic disciplines and fields, and important reasons for attending the University) and citizens' satisfaction with the University of Minnesota are shown in Table 4.

Insert Table 4

Goals and activities.

Satisfaction with the University correlates with attaching value to providing extracurricular activities, the advancement and dissemination of knowledge, and providing career-related services (see Table 4).

In the stepwise multiple regression analysis, no significant additional variance in satisfaction was explained by the last three categories of goals and activities, i.e. degree-related instruction, career-related services, and student development. Citizens' values regarding providing extra-curricular activities, and the advancement and dissemination of knowledge make the largest independent contributions to explaining the variance in satisfaction. Among the two sets, the following specific items made significant independent contributions to predicting satisfaction:

Sponsoring of athletic events for the public ($F=6.94$, $p \leq .005$)

Providing financial assistance to students in need ($F=8.45$, $p \leq .005$)

Providing professional performances in the arts ($F=8.45$, $p \leq .03$)

Conducting research which is immediately applicable to solving practical, technical and social problems ($F=3.84$, $p \leq .05$).

The only negative beta weight (Beta = -.16) among these was for sponsoring professional performances in the arts. Other values being equal, citizens who attribute more importance to the University's sponsoring athletic events, providing financial assistance, and doing applied research and who attribute less importance to providing professional performances in the arts are more satisfied.

Academic disciplines and fields

Among citizens' values regarding the importance of various academic disciplines and fields, only one is related significantly to satisfaction with the University: the more value citizens place on the role of vocational fields in the improvement of present day life for most Minnesota citizens, the more satisfied they are with the University.

Reasons for attending the University

The importance which citizens place on both personal development and economic and social success as reasons for attending the University are related positively to their satisfaction. However, in the stepwise multiple regression analysis, no significant additional variance in satisfaction was explained by adding economic and social success to the personal development reasons. After the first step in the multiple regression analysis, when only the personal development reasons were included in the regression, two of them made significant independent contributions to predicting satisfaction: to learn useful skills ($F=8.45$, $p \leq .004$) and to develop a philosophy of life ($F=6.94$, $p \leq .009$). These

two alone account for 86% of the prediction possible for the whole set.

Discussion

This study identified five categories of important University goals and activities which are particularly important to citizens. These goals include: (1) Enriching and Supportive Extra-curricular Activities; (2) Advancement and Dissemination of Knowledge; (3) Degree-related Instruction; (4) Career-related Services; and (5) Student Development. Citizens' values regarding these goals and activities were somewhat related to their satisfaction with the University. For instance, attitudes about the importance of providing extra-curricular activities and the importance of the advancement and dissemination of knowledge made the largest independent contributions to explaining the variance in their satisfaction with the University.

Three categories of academic fields and disciplines which citizens consider important to improving present-day life for most Minnesota citizens are: (1) Applied Scientific Fields; (2) Social Cultural Fields; and (3) Vocational Fields. Overall, citizens' values regarding the importance of these fields do not explain any significant amount of the variance in their satisfaction with the University. However, citizens who value the importance of the vocational fields tend to be somewhat more satisfied.

Citizens were asked how important various reasons should be for attending the University. Two categories of important reasons were: (1) Personal Development, and (2) Economic and Social Success. The reasons which citizens value as important for attending the University were somewhat related to their satisfaction with the University. Par-

ticularly, the value which citizens attach to personal development as a reason for attending the University makes the largest independent contribution to explaining the variance in their satisfaction.

This study has tried to identify some of the values of citizens which can be useful in explaining their satisfaction with a University. Although we have found that some educational values of citizens are somewhat related to their satisfaction, the results are somewhat discouraging since a large amount of the variance in citizen satisfaction was still not explained. Future research should consider other methods of measuring educational values. However, the findings should not be disregarded since the data do suggest the subtle role of educational values in understanding citizen satisfaction with a university.

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Footnote

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Table 1

Item Clusters suggested by Factor Analysis and Varimax Rotation

Citizens' Important Goals and Activities

for a State University (N=346)

Enriching and Supportive Extra-Curricular Activities	Loading on Varimax Factor
1. To provide a program of recreation and sports activities for students.	.81
2. To provide a program of extra-curricular social activities for students.	.68
3. To sponsor student athletic events for the public.	.58
4. To sponsor professional performances in the arts for the public.	.50
5. To provide financial assistance for students in financial need.	.35
(Alpha coefficient for simple sum of items = .76)	

Degree-Related Instruction	Loading
1. To provide instruction leading to a four-year degree.	.71
2. To provide instruction leading to a graduate or professional degrees.	.67
(Alpha coefficient for sum of items = .58)	

Advancement and Disseminat[illegible]on of Knowledge	Loading
1. To conduct research that may not be immediately applicable.	.68
2. To conduct research that is immediately applicable to solving practical problems.	.57
3. To make sure that a student appreciates the great ideas from great minds of history.	.38
(Alpha coefficient for sum of items = .62)	

Student Development	Loading
1. To develop the moral character of students.	.71
2. To produce a well-rounded student whose abilities have been developed.	.44
3. To prepare students for useful careers.	.34
(Alpha coefficient for sum of items = .58)	

Career-Related Services	Loading
1. To provide special training for part-time adult students through special classes	.60
2. To provide vocational counseling for students.	.52
3. To provide information to the public through Extension Services.	.45
4. To provide undergraduate instruction leading to less than a four-year degree.	.31
(Alpha coefficient for sum of items = .60)	

Table 2

Item Clusters Suggested by Factor Analysis and Varimax Rotation

Citizens' Important Academic Disciplines and Fields (N=346)

Applied Scientific Disciplines and Fields	Loading	Social-Cultural Disciplines and Fields	Loading	Vocational Disciplines and Fields	Loading
1. Physical sciences	.54	1. Social science	.52	1. Technical fields	.43
2. Technical fields	.69	2. Fine arts	.74	2. Law	.75
3. Health sciences	.48	3. Humanities	.77	3. Business administration	.67
4. Agriculture, Forestry, Home economics	.53				
5. Biology	.64				
6. Education	.32				
(Alpha coefficient for sum of items = .78)		(Alpha coefficient for sum of items = .77)		(Alpha coefficient for sum of items = .75)	

Table 3

Item Clusters Suggested by Factor Analysis and Varimax Rotation
Citizens' Important Reasons for Attending the University of Minnesota (N=370)

Personal Development	Loading
1. To learn rational and thoughtful attitudes toward solving problems.	.72
2. To learn useful skills.	.34
3. To learn to appreciate and make judgments about the creative and the beautiful.	.58
4. To learn to appreciate and work with people.	.58
5. To form a personal philosophy of life.	.57
(Alpha coefficient for sum of items = .70)	

Economic and Social Success	Loading
1. To gain power, influence and renown.	.64
2. To increase their earning power.	.59
(Alpha coefficient for sum of items = .55)	

Table 4

Stepwise Multiple Regression Analysis

Citizens' Important Educational Values and Their Satisfaction with a State University (N = 244)

	Stepwise Regression			Set by Set Multiple Regression	
Goals.	Overall R	Overall F	F Value for Adding Set	R for Set	F for Set
1. Enriching and supportive extra-curricular activities.	.25	3.32**	3.32**	.25	3.32**
2. Advancement and dissemination of knowledge.	.34	3.75**	4.23**	.25	5.52**
3. Degree-related instruction.	.35	3.32**	1.57	.14	2.60
4. Career-related services.	.37	2.65**	0.26	.20	2.53*
5. Student development.	.40	2.55**	1.94	.16	2.15
Academic Disciplines.					
1. Applied scientific fields.	.18	1.66	1.66	.18	1.66
2. Social cultural fields.	.21	1.34	0.83	.11	0.94
3. Vocational fields.	.24	1.29	1.14	.18	2.93*
Reason for Attending the University.					
1. Personal development.	.27	3.84**	3.84**	.27	3.84**
2. Economic and social success.	.29	3.28**	1.82	.17	3.82**

**$p \leq .01$

*$p \leq .05$